

Bilateral Vestibulopathy

Bilateral vestibulopathy (syn. bilateral vestibular areflexia) is a consequence of significant injury to the balance portions of both inner ears.

This injury is often due to long standing inner ear disease, such as Meniere's disease, affecting both ears. It is also caused by medicines which can damage the inner ear such as aminoglycosides e.g. gentamicin, kanamycin, streptomycin (the later 2 are standard anti-TB drug combination). These medicines not only damage the inner ear balance apparatus but also the hearing causing bilateral hearing loss.

Other causes are meningitis, severe head injury, bilateral viral neuronitis, neurofibromatosis, autoimmune disorders, B12/folate deficiency neuropathies CANVAS disorder and ototoxic chemotherapy.

The consequence of significant injury to the balance apparatus of both inner ears is the patient has a persistent feeling* that they could fall when walking. This feeling is worse in the dark when going to the bathroom. Patients also find walking on soft or irregular surfaces e.g. on grass or in the countryside, is often more challenging.

The only time patients do not have these symptoms are when they are sitting or lying down. It is noteworthy that patients do not experience attacks of spinning vertigo.

Additional symptoms are blurring of vision when the patient quickly turning their head and "jumping" vision on walking or being in a car. Patients often describe having to stop walking or driving a car, to be able to read a road sign.

New research has noted that bilateral vestibulopathy is associated with loss of ability to navigate and remember travelling routes – in effect the patient has an impaired natural "GPS". Some patients complain of "brain fog".

Examination reveals eye abnormalities, such as an abnormal "Doll's Eye" movement and a positive bilateral head impulse test, and walking abnormalities such as a failure of heel-to-toe movement (positive tandem Romberg test).

Investigations reveal bilateral abnormal caloric tests and often reduced hearing.

Treatment consists of:-

1) Avoidance of any vestibular suppressants e.g. antihistamines, antidepressants, aspirin, NSAIDS, benzodiazepines, calcium channel blocker e.g. verapamil or ototoxic drugs.

2) Vestibular therapy

3) Sensory substitution devices (e.g. a walking stick)

Last updated: 07.07.2022